

Date: Wednesday, 9/26/2007 2:09:17 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : TUBE ASSEMBLY
Job Number : 34896	
Estimate Number : 11527	
P.O. Number :	Part Number : D3021041
This Issue : 9/26/2007 S.O. No. :	Drawing Number : D3021/D3017
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LARGE FAB ASSY	Drawing Revision : A/A
Previous Run : 33365	Material :
Written By :	Due Date : 10/15/2007 Qty: 1 Um: Each
Checked & Approved By : <u>07.09.26</u>	
Comment : Est. 01.10.23 New Issue SM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M4130NT0750W049	4130 Tube .750 OD x.049W
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Comment: Qty.: 2.1875 f(s)/Unit Total : 2.1875 f(s)

4130 Tube .750 OD x.049W

Cut:- AISI 4130N tube, Ø3/4" x 0.049" wall batch: M100843

2.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
-----	-------------	------------------------------



Comment: LARGE FABRICATION RESOURCE 1

1-Cut tube as per Dwg D3021

2-Drill tube as per Dwg D3021 using D3021-041T1

3--Deburr

PD 03-04-10 ①

3.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

03/04/10 ①

4.0	M4130NS049	4130 Sheet .049 wall
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Comment: Qty.: 1.0500 sf(s)/Unit Total : 1.0500 sf(s)

4130 Sheet .049 wall

Cut:- AISI 4130N sheet, 18 gauge (0.050 thick)

batch: M11612

Identify For D3017-11 Cap

PD 03-04-10 ②

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 9/26/2007 2:09:17 PM
User: Kim Johnston

Process Sheet

30min

18/04/2008

S.056 06.16

#1 320.9 F

B. 31896 F

#3 F

#0 3021041 F

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 34896

Part Number: D3021041

Job Number:



Seq. #: Machine Or Operation: Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut end caps as per Dwg D3017

2-Weld as per Dwg D3021

A/R Steel Rod Batch: M1000015

PD 08-01-17 ①

6.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

08/04/17 ①

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/04/17

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

08-04-18

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

S/S 08/04/22 ①

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: GA

S/S 08/04/22 ①

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/04/24

Job Completion



MF 08-04-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

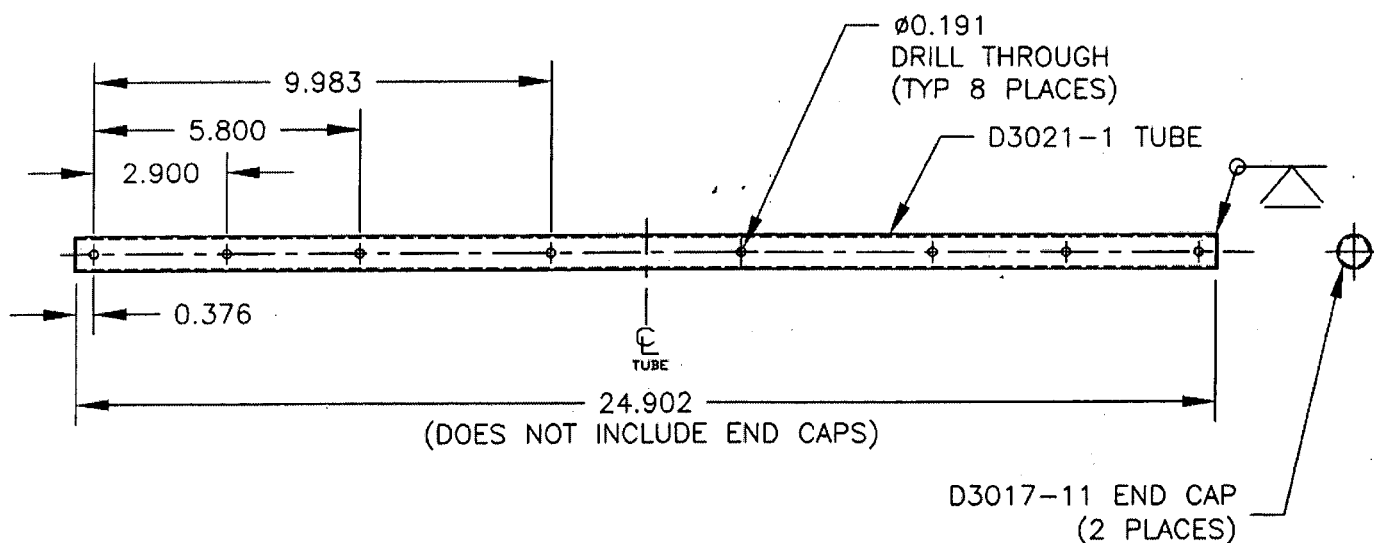
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3021	REV. A SHEET 1 OF 1
DATE 01.05.18		TITLE TUBE ASSEMBLY	SCALE 1:4
A	01.05.18	NEW ISSUE	



D3021-041 TUBE ASSEMBLY
(D3021-1 TUBE)

NOTES:

- 1) PART IS SYMMETRIC ABOUT CENTERLINE
- 2) MATERIAL: AISI 4130 TUBE, $\phi 0.75$ DIA x 0.049 WALL (M4130N-T0750W049)
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT GREY SANDTEX (REF 4.3.5.6) PER DART QSI 005.4.3
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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01.05.309

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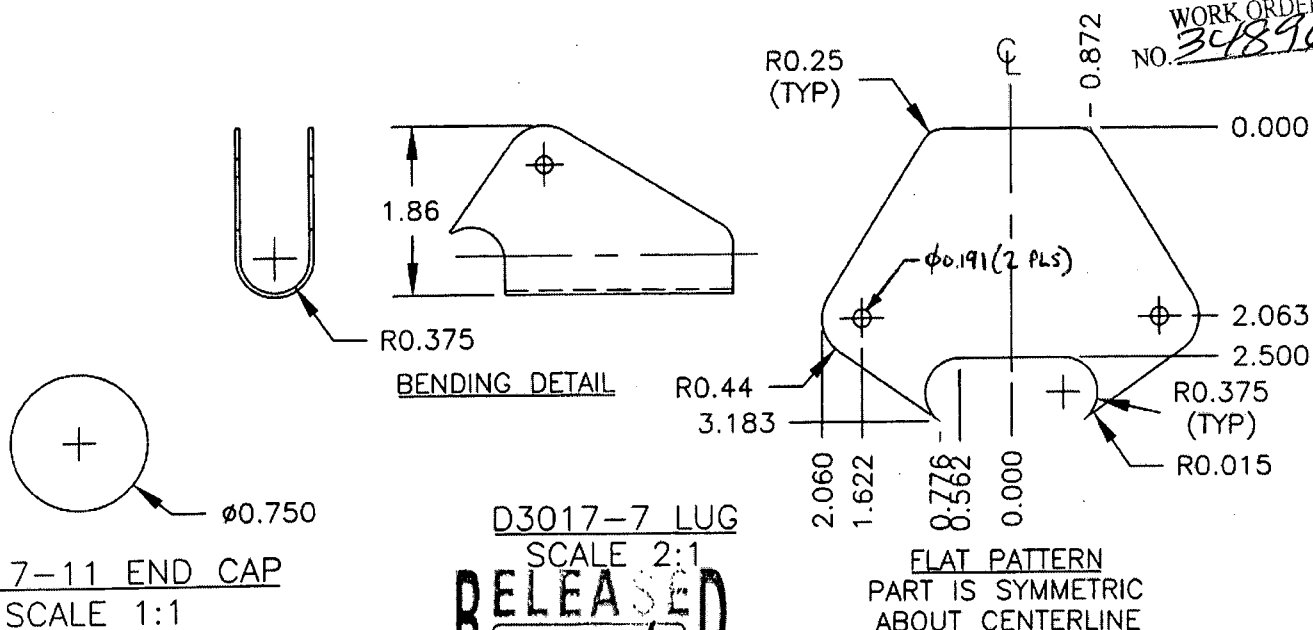
DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3017	REV. A SHEET 1 OF 2
DATE 01.05.18		TITLE BACK FRAME ASSEMBLY	SCALE 1:1
A	01.05.18	NEW ISSUE	

QTY	PART No.	DESCRIPTION	MATERIAL
X	D3017-041	BACK FRAME ASSEMBLY	N/A
1	D3017-1	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
2	D3017-3	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
1	D3017-5	TUBE	AISI 4130N TUBE, Ø0.75 DIA x 0.049 WALL (M4130N-T0750W049)
3	D3017-7	LUG	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)
2	D3017-11	END CAP	AISI 4130N SHEET, 18 GAUGE (M4130N-S049)

NOTES

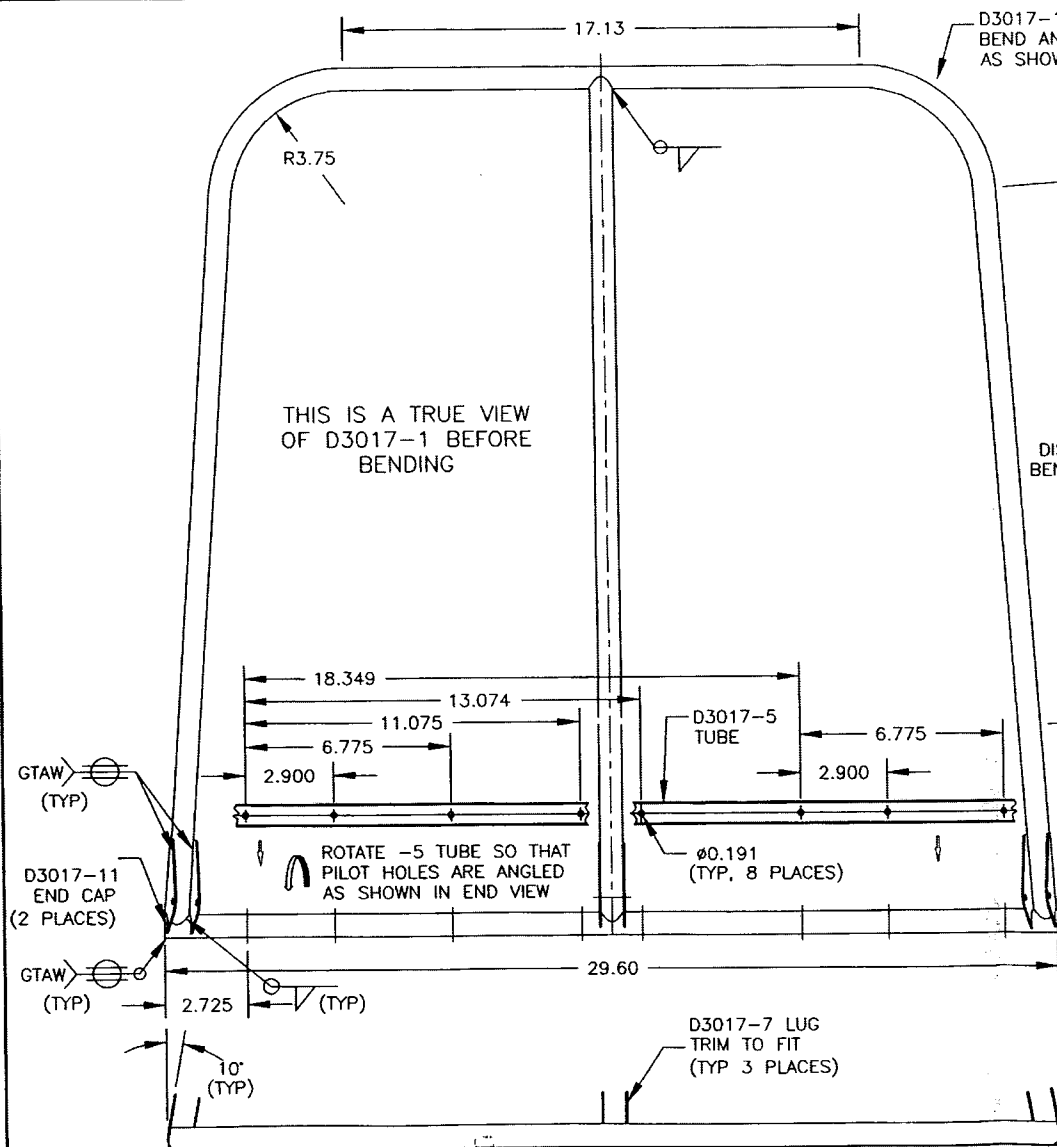
- 1) WELD PER DART QSI 004
- 2) ON SHEET METAL PARTS, BREAK ALL UNMARKED CORNERS 0.020-0.040
- 3) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 4) ALL DIMENSIONS ARE IN INCHES.
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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D3017-1 TUBE,
BEND AND CUT
AS SHOWN

THIS IS A TRUE VIEW
OF D3017-1 BEFORE
BENDING

ROTATE -5 TUBE SO THAT
PILOT HOLES ARE ANGLED
AS SHOWN IN END VIEW

D3017-7 LUG
TRIM TO FIT
(TYP 3 PLACES)

17.92
DIST BETWEEN
BEND TANGENTS

DRILL $\phi 0.128$ HOLES TO LINE UP
WITH D3023-1 BACK PANEL

26.2°
ANGLE
TO HOLE
CENTERLINE

R0.38
(TYP)

R4.00

D3017-3 TUBE

RELEASED
01-06-07

D3017-041 BACK FRAME ASSEMBLY
(D3017-1 TUBE, D3017-5 TUBE)

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CHECKED	#	APPROVED	#	DRAWING NO. D3017	REV. A SHEET 2 OF 2
DATE	01.05.18	TITLE	BACK FRAME ASSEMBLY	SCALE	1:4

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